RÉPUBLIQUE FRANÇAISE.

MINISTÈRE DU COMMERCE ET DE L'INDUSTRIE.

DIRECTION DE LA PROPRIÉTÉ INDUSTRIELLE.

# BREVET D'INVENTION.

**Gr. 9. — Cl. 4.** **N° 751.668**

## Nouveau système amortisseur applicable aux lits, sièges et analogues.

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**Demandé le 28 février 1933, à 15h30m à Paris.**
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Le dispositif amortisseur habituellement employé pour les lits, divans, sièges, etc., consiste en général à faire usage de ressorts travaillant à la compression, ce qui entraîne une déformation rapide de ceux-ci obligeant à leur remplacement si on ne veut pas voir le siège ou le lit former un creux dans la partie où le corps repose habituellement.

La présente invention a pour objet un nouveau système amortisseur très souple comportant un cadre fixé à l'intérieur du siège ou du lit et auquel sont fixés des ressorts à leur partie supérieure, la partie inférieure de ces derniers soutenant un autre cadre indépendant muni de traverses sur lesquelles viendra reposer le cadre supportant le matelas.

Les figures du dessin annexé représentent à titre d'exemple seulement une forme de réalisation de cette invention indépendante de toutes dimensions, matières et formes.

La fig. 1 représente en perspective un lit muni du système amortisseur suivant l'invention.

La fig. 2 est une vue semblable montrant le cadre sur lequel repose le matelas.

La fig. 3 est une coupe montrant la liaison du cadre fixe et du cadre mobile.

La fig. 4 est une vue semblable montrant la position du cadre supportant le matelas sur le cadre mobile.

La fig. 5 montre en perspective l'adaptation du matelas sur son cadre.

La fig. 6 est une coupe montrant l'assemblage de plusieurs éléments constituant le matelas.

La fig. 7 montre l'adaptation du dispositif amortisseur à un siège.

A l'intérieur du lit ou du siège on fixe un cadre 1 constitué de préférence par une cornière dont l'aile horizontale est percée d'un certain nombre de trous correspondant au nombre de ressorts 2, dont la fixation est réalisée au moyen d'un œil dans lequel passe une broche 3.

Le cadre mobile est suspendu à la partie inférieure des ressorts 2 et porte des barres transversales 5 destinées à recevoir le cadre 6 sur lequel est tendue par lacage ou par tout autre moyen une toile 7 qui reçoit le matelas.

Afin de limiter l'allongement des ressorts 2, des tasseaux 8 sont placés aux extrémités du cadre 6, de telle manière qu'ils viennent reposer sur l'aile horizontale du cadre 1 dans la position d'extension maximum des ressorts 2.

Les matelas bourrés de laine, crin ou autres matières analogues animales ou végétales présentent de grands inconvénients pour le nettoyage et la désinfection, de plus le tassement des matières qui les composent leur enlève rapidement toute souplesse.

**Prix du fascicule : 5 francs.**

Le système amortisseur objet de la présente invention comporte en outre des éléments décrits ci-dessus, un matelas ou coussin composé d'éléments constitués par des gaines 9 en toile lavable dans lesquelles on a introduit une matière élastique imputrescible telle que de la mousse de caoutchouc ou analogues, ces différents éléments sont assemblés entre eux soit par laçage soit par tout autre procédé de manière à pouvoir opérer le remplacement rapide d'un ou plusieurs éléments souillés en vue de leur nettoyage ou de leur désinfection.

La fig. 7 montre que le dispositif décrit peut être également appliqué aux sièges de toute nature.

RÉSUMÉ.

Nouveau système amortisseur applicable aux lits, divans, sièges et objets anlogues, caractérisé par :

1° Un cadre est fixé à l'intérieur du lit ou du siège pour être dissimulé et reçoit un certain nombre de ressorts disposés pour travailler à la traction.

2° Un cadre mobile entretoisé par des traverses est suspendu aux ressorts suisuivant 1.

3° Un cadre amovible destiné à recevoir le matelas et recouvert à cet effet d'une toile tendue et fixée par tous moyens appropriés, repose sur les traverses suivant 2.

4° Matelas constitué par un certain nombre d'éléments composés de gaines en toile ou analogues dans lesquelles on a introduit une matière élastique imputrescible telle que de la mousse de caoutchouc, les différents éléments du matelas sont assemblés entre eux, soit par un laçage, soit par tout autre procédé en vue de permettre le remplacement facile d'un ou plusieurs éléments souillés.

EMMANUEL-MARIE-GABRIEL LE NORMAND.

Pour la vente des fascicules, s'adresser à l'IMPRIMERIE NATIONALE, 27, rue de la Convention. Paris (15e).

fig : 1

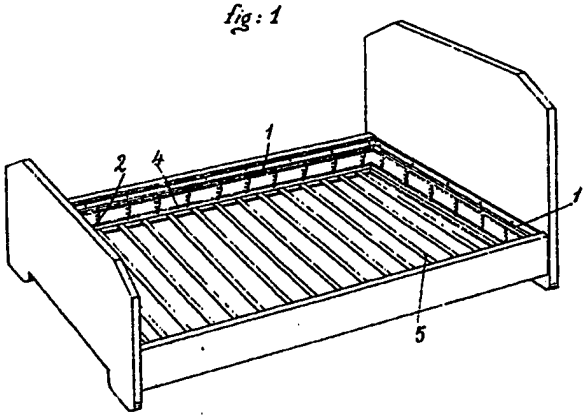


fig : 2

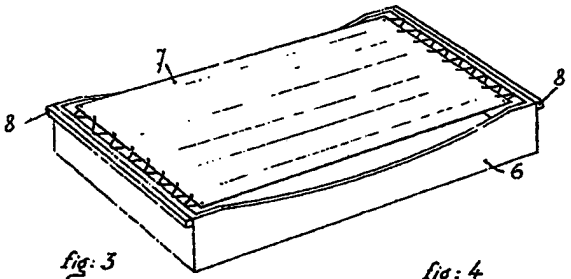


fig : 3

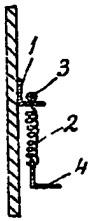


fig : 4

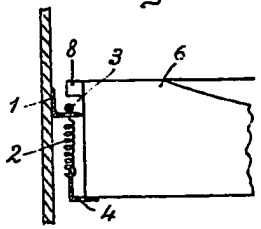


fig : 5

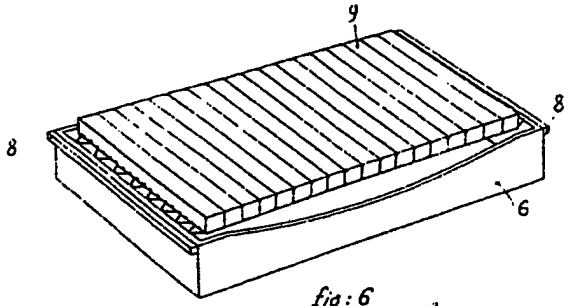


fig : 6

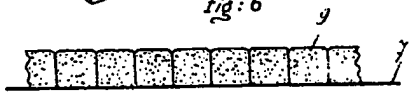


fig : 7

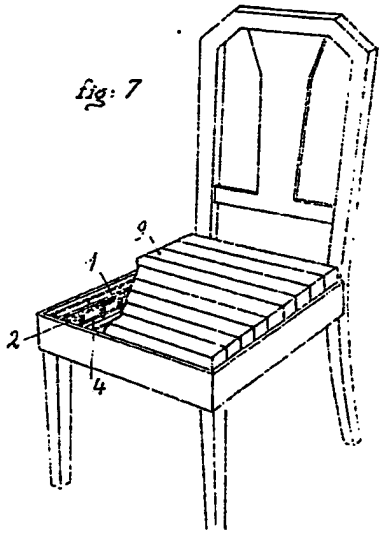

fig : 1

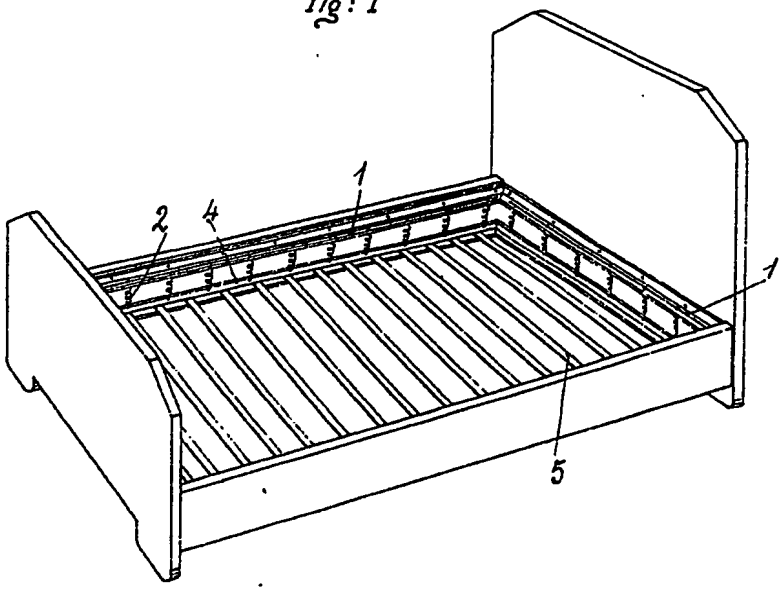


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fig : 2

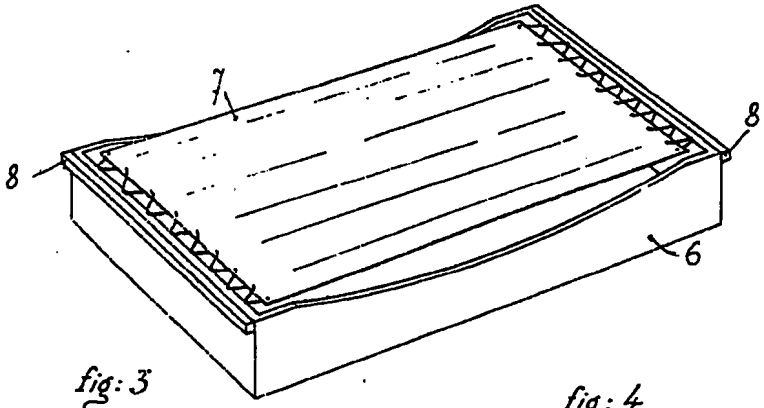



fig : 3

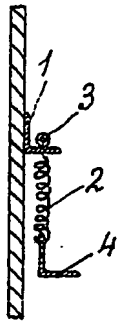



fig : 4

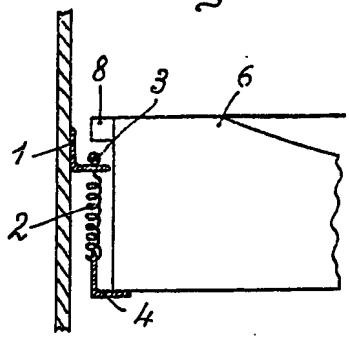


fig: 5

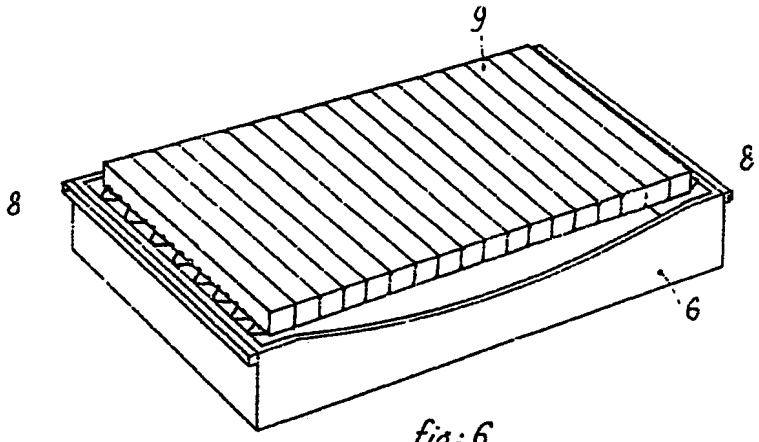



fig: 6

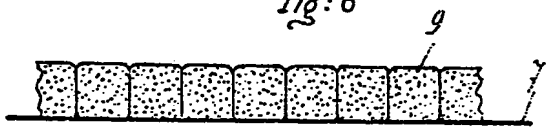
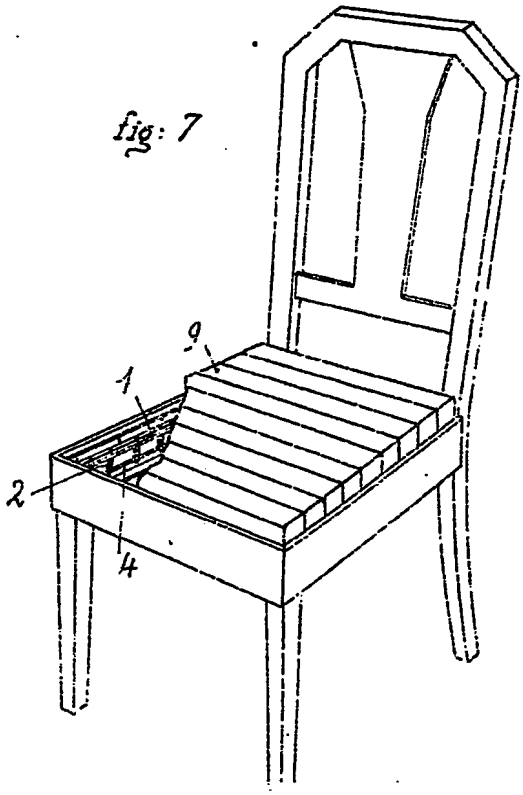



fig: 7



# PATENT SPECIFICATION

Application Date: Jan. 18, 1933. No. 1615/33. 411,578

Complete Left: Nov. 25, 1933.

Complete Accepted: June 14, 1934.

PROVISIONAL SPECIFICATION.

## Improvements in or relating to Bedsteads.

I, ERNEST VAUGHAN, of Field House, Clent, near Stourbridge, in the County of Worcester, a British subject, do hereby declare the nature of this invention to be as follows:—

This invention is for improvements in connection with bedsteads, more particularly of the well type in which angle section side rails of the bedstead frame provide a support at a low level for the frame of a spring mattress.

The object of the invention is to provide a simple and efficient means of converting this well type of bedstead into a raised type in which the spring mattress can be supported at a higher level.

According to the present invention the bedstead is provided with a plurality of removable brackets adapted to be supported by the side rails of the bedstead frame in upstanding relation thereto, and adapted to provide at their upper ends an elevated support for the side members of the mattress frame. Preferably each bracket is of sheet metal formation, hooked or bent at its lower end for locating engagement with the bedstead side rail, and of screw clamp formation at its upper end adapted for clamping engagement with the component flanges of a mattress frame side rail of angle section.

In a convenient embodiment of the invention, as applied to a well type bedstead embodying a pair of angle bar side rails disposed at a relatively low level, these bedstead side rails normally provide a low level support for a spring mattress, for instance of the undersprung type in which the mesh is flexibly supported on springs upstanding from stretcher bars embodied in the mattress frame, which is also of angle bar construction and is of rectangular formation having rounded corners, the angle bar side members of the mattress frame normally taking a direct support upon the angle bar side rails of the bedstead frame.

For the purpose of converting this well type bedstead into a raised type bedstead, a series of say four upstanding brackets are adapted to be removably interposed between the bedstead side rails and the mattress frame, one bracket being located at or adjacent each end of each bedstead side rail, in a position adjacent the corresponding corner of the superposed mattress frame. Each of these brackets is of an upwardly tapering sheet-metal construction, the lower end being inwardly bent at right angles to take a support upon the horizontal upper flange of the bedstead side rail, and being downwardly bent or hooked for locating engagement with the inner edge of this horizontal upper flange of the bedstead side rail. The upper end of the bracket is inwardly bent at right angles to provide a support for the horizontal upper flange of the angle bar side rail of the mattress frame, and is upwardly and outwardly hooked for locating engagement with the inner edge of this flange, the upper part of the bracket having on its outer face an auxiliary clamping plate of shallow L cross-section adapted to embrace the vertical lower flange of the mattress frame side rail, this auxiliary clamping plate being secured in position by means of a bolt passing through the clamping plate and bracket in a position beneath the lower edge of the mattress frame side rail, the bolt being fitted with a controlling thumb screw on the inner face of the bracket.

It will be seen that by removing the spring mattress from its supporting bedstead frame and by clamping the series of four brackets in position dependent from the angle bar side rails of the mattress frame, the lower ends of the brackets can then be engaged upon and within the bedstead side rails so as to be supported in upstanding relation thereto, the mattress frame and its flexible mesh being thereby located and supported at the desired higher level in relation to the side rails of the bedstead.

Dated this 17th day of January, 1933.

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Chartered Patent Agents,
5, Corporation Street, Birmingham, 2,
Agents for the Applicant.

[Price 1/-]

## COMPLETE SPECIFICATION.

# Improvements in or relating to Bedsteads.

I, ERNEST VAUGHAN, of Field House, Clent, near Stourbridge, in the County of Worcester, a British subject, do hereby declare the nature of this invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention has reference to improvements in connection with bedsteads.

It has been proposed to support a mattress frame upon socketted projections from the head and foot frames or posts of a bedstead by means of brackets secured beneath the corners of the mattress frame and each carrying a dependent bolt passing through its respective socket, the arrangement being such that bedstead side rails are dispensed with and that the mattress frame is supported at a constant level determined by the shape of the brackets. In another proposal a bed bottom of wood lath or other type has been supported by means of clips or brackets slidably mounted on the angle-iron end rails or side rails of a bedstead and adapted to be fixed in position thereon by wedges or otherwise, the clips or brackets having inwardly projecting supporting arms, and the arrangement being such that the mattress frame is supported at a constant level determined by the shape of the clips or brackets, without any possibility of direct support upon the end rails or side rails. In a still further proposal a mattress frame has been supported by means of brackets or hangers seated in dovetailed or other vertical mortises or grooves in the side and end rails of a bedstead in such a manner as to be vertically adjustable therein by means of screws, the brackets or hangers having inwardly projecting supporting arms, and the arrangement being such that the mattress frame is supported at an adjustable level below the upper plane of the side and end rails, without any possibility of direct support upon the side rails or end rails.

The present invention relates to a bedstead in which side rails, usually of angle section, provide normally a low-level support for the frame of a spring mattress, and the object is to provide a simple and efficient fitting for providing an alternative high-level support in a plane above that of the side rails.

According to the invention the bedstead fitting consists in a bracket which is adapted to be removably supported by a side rail of the bedstead frame in upstanding relation thereto and which is adapted to provide at its upper end an elevated support for a side member of the mattress frame, in a plane above the normal plane of support of the mattress frame upon the side rails.

Preferably each bracket is of sheet-metal formation, hooked or bent at its lower end for locating engagement with the bedstead side rail, and of screw clamp formation at its upper end for clamping engagement with the component flanges of a mattress frame side rail of angle section.

The invention is illustrated in the accompanying drawing, in which:—

Figure 1 is a perspective view of a bedstead having the removable mattress-supporting bracket fittings applied;

Figure 2 is an elevation in perspective of one of the brackets detached;

Figure 3 is a partly sectional end elevation of a bracket in its mattress-supporting position of use upon the bedstead side rail.

Referring to the drawing, the bedstead $a$ embodies a pair of angle-bar side rails $a^1$ disposed at a relatively low level so as normally to provide a low level support for a spring mattress $b$, for instance of the undersprung or well type in which the mesh is flexibly supported on springs $b^1$ upstanding from stretcher bars $b^2$ embodied in the mattress frame, which is also of angle-bar construction and is of rectangular formation, the angle-bar side members $b^3$ of the mattress frame normally taking a direct support upon the angle-bar side rails $a^1$ of the bedstead.

For the purpose of supporting this well-type mattress $b$ in alternative positions on the bedstead $a$, a series of say four upstanding brackets $c$ are adapted to be removably interposed between the bedstead side rails and the mattress frame, one bracket $c$ being located at or adjacent each end of each bedstead side rail $a^1$, in a position adjacent the corresponding corner of the superposed mattress frame. Each of these brackets $c$ is of an upwardly tapering sheet-metal construction, the lower end being inwardly bent at right angles as at $c^1$ to take a support upon the horizontal upper flange of the angle-bar side rail $a^1$ of the bedstead, and being downwardly bent or hooked as at $c^2$ for locating engagement with the inner

edge of this flange. The upper end of the bracket is inwardly bent at right angles as at $c^3$ to provide a support for the horizontal upper flange of the angle-bar side member $b^3$ of the mattress frame, and is upwardly and outwardly hooked as at $c^4$ for locating engagement with the inner edge of this flange, the upper part of the bracket $c$ having on its outer face an auxiliary clamping plate $c^5$ of shallow ⌊ cross-section adapted to embrace the vertical lower flange of the member $b^3$, and this auxiliary clamping plate $c^5$ being secured in position by means of a bolt $c^6$ passing through the clamping plate and bracket in a position beneath the lower edge of the mattress frame side member $b^3$, the bolt being fitted with a controlling wing-nut $c^7$ on the inner face of the bracket.

It will be seen that by removing the spring mattress $b$ from the bedstead and by clamping the series of four brackets $c$ in position dependent from the angle-bar side members $b^3$ of the mattress frame, the lower ends of the brackets $c$ can then be engaged upon and within the bedstead side rails $a^1$ so as to be supported in upstanding relation thereto, the mattress frame and its flexible mesh being thereby located and supported at the desired higher level in relation to the side rails $a^1$ of the bedstead, as clearly illustrated in Figures 1 and 3 of the drawing.

Having now particularly described and ascertained the nature of my said invention, and in what manner the same is to be performed, I declare that what I claim is:—

1. A bedstead fitting for use in supporting a mattress in alternative positions on a bedstead, and which consists in a bracket adapted to be removably supported by a side rail of the bedstead frame in upstanding relation thereto, and adapted to provide at its upper end an elevated support for a side member of the mattress frame, in a plane above the normal plane of support of the mattress frame upon the side rails.

2. A bedstead fitting for use in supporting a spring mattress having an angle section frame in alternative positions on a bedstead having angle-section side rails, and which consists in a sheet-metal bracket adapted to be supported vertically and removably upon one of the bedstead side rails and to provide at its upper end an elevated support for an angle-section side member of the mattress frame, in a plane above the normal plane of support of the mattress frame upon the side rails, said bracket having bent and hooked lower and upper ends engageable with the horizontal upper flanges of the bedstead side rail and of the mattress frame side member respectively, and said bracket carrying an auxiliary screw clamping plate engageable with the vertical lower flange of the mattress frame side member.

3. A bedstead fitting, constructed substantially as and for the purpose herein set forth.

Dated this 24th day of November, 1933.

LEWIS W. GOOLD & Co.,
Chartered Patent Agents,
5, Corporation Street, Birmingham, 2,
Agents for Applicant.

Redhill: Printed for His Majesty's Stationery Office, by Love & Malcomson, Ltd.—1934.

[This Drawing is a reproduction of the Original on a reduced scale.]

Fig. 1.

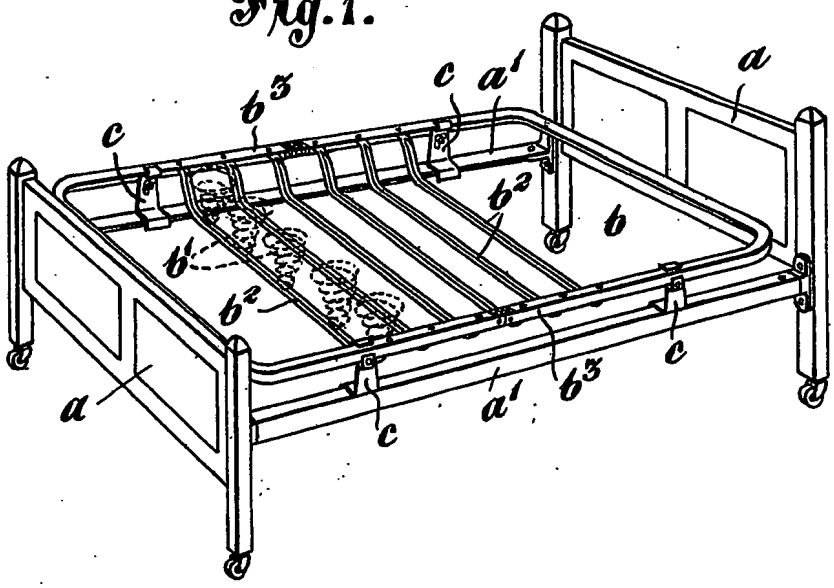



Fig. 2.

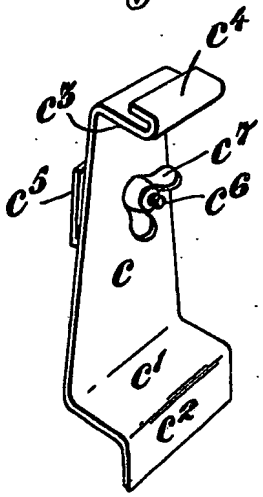
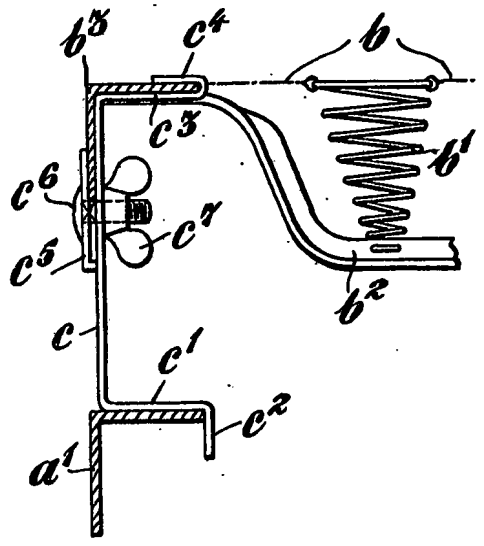



Fig. 3.

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